

Now you can plot in true

3D

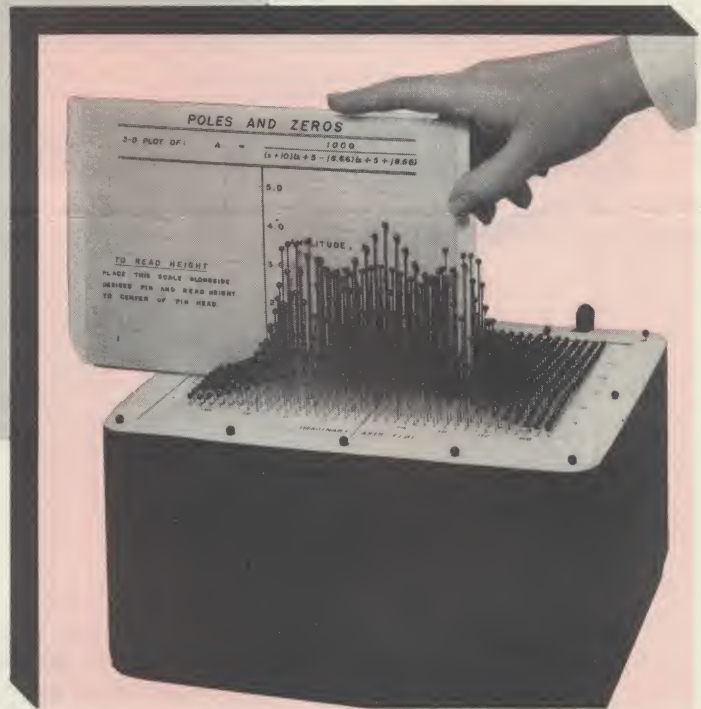
with **DIMEN-PLOT**
KITS OR ARRAYS

Uses

- RESEARCH
- DEVELOPMENT
- DESIGN
- EDUCATION
- SALES
- ADVERTISING
- ANALYSIS
- PRESENTATIONS
- DISPLAYS
- PACKAGING

Features

- EASY TO USE
- QUICK TO PLOT
- ACCURATE
- INFINITE RESOLUTION
- RE-USABLE
- ANY SCALES
- ANY CO-ORDINATE SYSTEM
- PLOTS STORE INDEFINITELY
- EASILY READ
- 4-D & 5-D PLOTS BY VARYING HEAD COLOR AND HEAD SIZE



Here are some typical applications.
Is yours included?

ENGINEERING AND SCIENCE

AEROSPACE—trajectories, space orientation, space gradients and fields
 ASTRONOMY—cosmological distributions, galaxy models, star structures, spatial distributions, orbits
 BIO-MEDICAL—vector cardiography, cell structures, organ shapes, EEG, data analysis, structural models
 CHEMISTRY—molecular models, material properties, periodic tables
 CIVIL ENGINEERING—topological maps, structural models, fluid flow
 COMPLEX PLANE—poles and zeros, filter design, servo design, stability studies
 COMPONENT AND MATERIAL CHARACTERISTICS—transistors, magnetics, dielectrics, plastics
 DIRECTIONAL PROPERTIES—antennas, loudspeakers, microphones, sonic transducers
 FREQUENCY ANALYSIS— f vs. t vs. intensity—speech, noise, shock, vibration, EEG, countermeasures
 MATHEMATICS—solid and analytic geometry, hyperbolic space, mathematical models
 MICROWAVES—space vectors, directional properties, space models, complex characteristics
 OCEANOGRAPHY—underwater properties, ocean floor topography, wave studies, ocean currents
 PHYSICS—Plasma properties, magnetic bottles, Fermi surfaces, nuclear models, X-ray analysis, nuclear properties, cloud chamber analysis
 PSYCHOLOGY—human factors, aging, vision experiments, data analysis
 SOCIOLOGY—population studies, ecology, multidimensional analysis
 SPACE GRADIENTS—field strength, dipoles, temperature, strain, stress, space charge
 STATISTICS—reliability, quality control, complex analyses, probability functions
 THERMODYNAMICS—heat flow, gradients, entropy functions
 WEATHER—cloud shapes, temperature and pressure distributions, hurricane research

EDUCATION

Excellent for all quantitative or spatial subjects, particularly in mathematics, engineering and science.

SALES & ADVERTISING

Advertising and Booth Displays
 Census Data Analysis
 Market Research and Analysis
 Sales Presentations
 Sales Projections

BUSINESS & FINANCE

Bond Yields
 Cost Analysis
 Financial Analysis
 Forecasting and Scheduling
 Management Presentations
 Market Studies
 Stock Market Charting

DIMENSIONS, inc.

95 MADISON AVENUE • HEMPSTEAD, L. I., N. Y. 11550

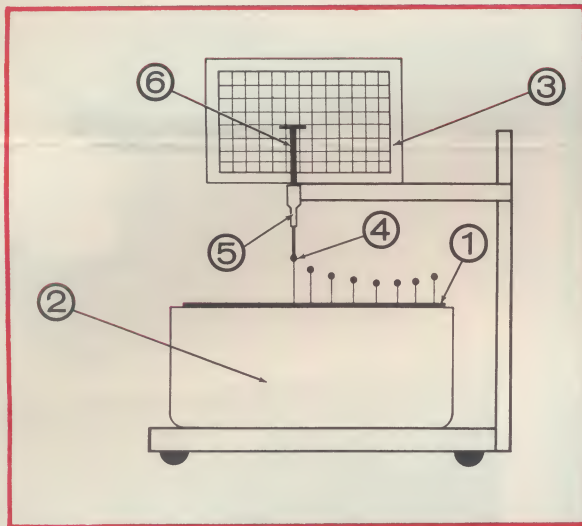
PRINCIPLE

With the DIMEN-PLOT technique, the three-dimensional display of quantitative data in a volumetric region is obtained by locating headed pins at discrete points on a supporting base and by adjusting the height to which the pin heads project above the supporting base. The location of the pins on the supporting base defines two coordinates (X and Y) of a plotted point and the height defines a third coordinate (Z).

DIMEN-PLOT KITS*...

FOR GENERAL-PURPOSE MANUAL 3D PLOTTING

A plotting table and pin guide assembly is provided with each kit to enable pins to be plotted uniformly straight. A pin may be plotted at any X, Y coordinate and set to any height Z. Pins remain in place once plotted or may be removed and re-plotted at any time. Accuracy is as good as the graph paper used.



HOW TO PLOT

Choose a graph paper, 1, with desired horizontal (X and Y) scales and pin on top of plotting base, 2. Face desired side of vertical (Z) scale, 3, toward you. Place pin, 4, into pin guide, 5. Position plotting base until point of pin is over desired horizontal coordinates on graph paper, 1. Push pin down into plotting base with pusher, 6, until marker on pusher is at desired height on vertical scale, 3. Raise pusher, and insert next pin and repeat. To replot, remove all pins, replace graph paper, and plot again.

HOW TO READ

Read horizontal (X and Y) coordinates directly on horizontal graph paper, 1, on top of plotting base, 2, where pins penetrate paper. To read height, slide vertical Z scale, 3, alongside desired pins and read height directly on scale, as shown in photograph on front page.

DIMEN-PLOT KIT SPECIFICATIONS

Model Number of Kit	P18-18	P9-12	P6-6
Size of Plotting Base	18"x18"x6"	9"x12"x6"	6.5"x6.5"x6"
Pins: Overall height†	6"	6"	6"
Head Diameter†	9/64"	9/64"	9/64"
Head Shape	spherical	spherical	spherical
Number in Kit	1500	750	500
Plotting Table and Pin Guide Assembly	large	medium	small

†Longer pins and other heads available. See last page. All pins have nickle-plated steel shafts.

A KIT CONTAINS

Plotting Table & Pin Guide Assembly
Plotting base
Set of pins in two head colors
Pusher
Vertical scale support sheet
Assorted hardware
Instruction Manual

*Patent Applied For

WHY 3D?

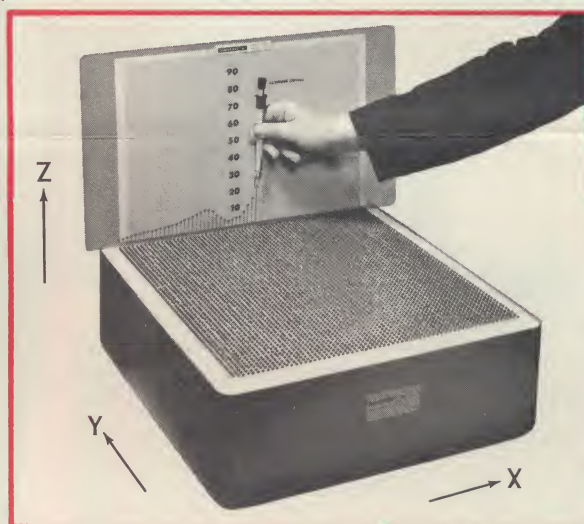
Sight is the most effective sense, by far, for conveying information to man. The natural three-dimensional characteristics of vision and the enormous information capacity of a volume compared to an area make the 3-D graph ideal for allowing complicated data to be quickly and readily grasped.

PRE-PLOTTED DIMEN-PLOT ARRAYS*...

FOR FASTER MANUAL 3-D PLOTTING

Pre-plotted arrays consist of pins pre-inserted into a plotting base in a uniform rectilinear pattern in horizontal (X and Y) directions. The user sets the height (Z) of each pin as desired. Compared to plotting with kits, plotting time is reduced because pins are already inserted in base. Disadvantage compared to kits is the lack of flexibility in selecting X and Y coordinates and type of pin.

A 64 x 64 array has a total of 4096 pre-plotted pins. The plotting area may be used for one 3-D plot of 4096 points; two separate plots of 2048 points; etc. Pre-plotted arrays use our standard 6" pins with spherical heads spaced $\frac{1}{4}$ " apart. Any pin may be removed and a longer or other type pin may be manually inserted in its place (see last page for special pins). Pins are all one color unless specified otherwise. Arrays may be obtained with different colors interspersed by line, quadrant, etc.



HOW TO PLOT

Simply set the height of each pin by raising to required height. A pin lifter-pusher and a plasticized vertical scale are supplied for convenience in setting heights. Pins remain in place once set. They may be reset at any time by simply raising or lowering with the pin lifter-pusher, using the vertical scale for accuracy. Plots may be stored or may be repeatedly changed indefinitely; there are no significant aging or wear effects.

DIMEN-PLOT ARRAY SPECIFICATIONS

Model Number	Q64	Q42	Q22
Pin Array	64x64	42x30	22x22
Base Size	18"x18"x6"	12"x9"x6"	6.5"x6.5"x6"
Pin Spacing	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
Spare Pins	100	50	25

AN ARRAY INCLUDES

Base with pre-plotted pins
Pin lifter-pusher
Vertical scale with cm and inch scales
Spare pins
Instruction manual

* Patent Applied For

ACCESSORIES AVAILABLE

Plotting Bases:

Standard:	Large	Medium	Small
	18"x18"x6"	9"x12"x6"	6.5"x6.5"x6"
Special:	Specify length, width and height.		

Pins:

Heads:	Standard:	9/64" diameter, in red, white, yellow, blue, green, turquoise, dark brown and black		
	Special:	1/8", 3/16" and 1/4" diameter in red, white, black and crystal		
Lengths:	Standard:	6" (plotting heights, 0 — 5.5")		
	Special:	10" (plotting heights, 4" — 9.5") 12" (plotting heights, 6" — 11.5")		

Any combination of available head size, length and color may be obtained.

Vertical Scale:

Standard:	cm units on one side, inch on the other
Special:	any two scales, one per side

Transparent Dust Covers:

Hard covers (shown at right with Q64 Array) are available for all standard and special base sizes and for clearance heights of 6" and 12".

Carrying Case:

To order



ORDERING INFORMATION

To order a kit or array, specify Model #. To order additional plotting bases and/or pins, specify size of plotting bases and length, head diameter and head color of pins. To order a transparent dust cover, specify type, base size and height. To order a non-standard vertical scale, specify the two scales desired and the base size to be used with.

ADVANCED DISPLAYS

If you are interested in fully automated DIMEN-PLOT* X-Y-Z plotters or in dynamic (all-electronic) three-dimensional displays, our Engineering Department will be able to assist you. Kindly let us know your requirements.

*Patent Applied For

For further information please contact:

DIMENSIONS, inc.

95 MADISON AVENUE • HEMPSTEAD, L. I., N. Y. 11550 • (516) IVanhoe 3-3636

7/65

DIMENSIONS, inc.

95 Madison Avenue
Hempstead, L.I., N.Y.
(516) IVanhoe 3-3636

PARTIAL LIST OF DIMEN-PLOT USERS

Aerojet-General Corp.
Allison Div., General Motors Corp.
American Cyanamid Company
American Oil Company
Atlas Chemical Industries, Inc.

Battelle Memorial Institute
Bell Telephone Laboratories
Bellcomm, Inc.
Boeing Company
Brookhaven National Laboratory

California Institute of Technology
Canadian Celanese Company
Canadian Dept. of Defense Production
Chicago Board of Education
Clarkson College of Technology
Columbia University
Combustion Engineering, Inc.
Continental Can Co., Inc.
Cornell Aeronautical Laboratory, Inc.
Cornell University
Corning Glass Works

Du Pont de Nemours & Co., Inc.

Eastman Kodak Company

Federal Scientific Corp.
Ford Motor Company

General Electric Company
Grace, W.R. Co., Research

Harshaw Chemical Company
Harvard College Observatory

IBM
ITT

Jet Propulsion Laboratory
Johns Hopkins University
Johnson's Wax

Lincoln Laboratory
Los Alamos Scientific Laboratory
Louisiana Polytechnic Institute

Marathon Oil Company
Martin-Marietta Corporation
Massachusetts Institute of Technology
Microwave Associates

NASA
National Bureau of Standards
National Institutes of Health
New York University Medical Center

Penn State University
Pittsburgh Plate Glass Company
Pratt & Whitney Aircraft Company
Procter & Gamble

RCA
Raytheon Company

Salomon Bros. & Hutzler, finance
Sandia Corporation
Standard Oil Co. of California
Stanford University

Temple University

Union Carbide Corp., Chemical & Nuclear Div.
U.S. Air Force, Hanscom Field
U.S. Army: Biological Labs; Electronics
Command; Picatinny Arsenal
U.S. Navy: Underwater Ordnance Sta.;
Underwater Sound Lab; Aviation
Medical Center; Weapons Lab
University of Kansas, M.E. Dept.
University of Minnesota, Mines Exp. Sta.
University of Pennsylvania,
Dept. of Pharmacology
University of Ottawa, E.E. Dept.
University of Rochester, Geology Dept.
University of Tennessee, Agricultural
Research Laboratory

Western Electric Company
Westinghouse Electric Corporation
Wichita State University
Woods Hole Oceanographic Institution

Xerox Corporation

Please turn over for PRICE LIST